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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/759,425	01/12/2001	Bart F. Rice	18721-5695	2323

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EXAMINER	
CANGIALOSI, SALVATORE A	
ART UNIT	**PAPER NUMBER**
3621	

DATE MAILED: 09/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/759,425	RICE, BART F.	
	Examiner	Art Unit	
	Salvatore Cangialosi	3621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 June 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *23 June 2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. It is noted that some of the no-patent literature cited by applicant has not been considered since it was absent from the current application file. It is further noted that all of the cited references considered are readable on at least some of the claims since all appear to show binary spread spectrum sequences.

2. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
>
> Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

3. Claims 2-19 are rejected under 35 U.S.C. § 103 as being unpatentable over Frazier. Jr. or Kaufman et al in view of Short et al(all cited by applicant).

Regarding claim 2, either Frazier. Jr.(See Figs. 6 and 7, Col. 6, lines 40-60, Col. 15, lines 45-60 and claims 12 and 15) or Kaufman et al(See Fig. 2, 8, Col. 8 lines 20-6 and claim 1) disclose an assembly of spread spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage

in a plurality of shift registers and placed on a sinusoidal carrier substantially as claimed. The differences between the above and the claimed invention is the use of binary signals from shift registers which represent a portion of the information. It is noted that the symbols of the prior art described above show digital sequences representing symbols would be readable on the claim limitations. Short et al (See Figs. 2B-3) show a multibit sequences produces by a plurality of shift registers in a spread spectrum signal. It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Frazier. Jr. or Kaufman et al because the digital signals and multibit sequences signals are conventional functional equivalents. Regarding claim 3, either Frazier. Jr.(See Figs. 6 and 7, Col. 6, lines 40-60, Col. 15, lines 45-60 and claims 12 and 15) or Kaufman et al(See Fig. 2, 8, Col. 8 lines 20-6 and claim 1) disclose an assembly of spread spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage in a plurality of shift registers and placed on a sinusoidal carrier substantially as claimed. The differences between the above and the claimed invention is the use of binary signals from shift registers which represent a portion of the information from transmission and reception nodes. It is noted that the symbols of the prior art described above show digital sequences representing symbols would be readable on the claim limitations. Short et al (See Figs. 2B-3) show a multibit

sequences produces by a plurality of shift registers in a spread spectrum signal from transmission and reception nodes. It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Frazier. Jr. or Kaufman et al because the digital signals and multibit sequences signals are conventional functional equivalents. Regarding claim 4, either Frazier. Jr.(See Figs. 6 and 7, Col. 6, lines 40-60, Col. 15, lines 45-60 and claims 12 and 15) or Kaufman et al(See Fig. 2, 8, Col. 8 lines 20-6 and claim 1) disclose an assembly of spread spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage in a plurality of shift registers and placed on a sinusoidal carrier substantially as claimed. The differences between the above and the claimed invention is the use of binary signals from shift registers which represent a portion of the information from transmission and reception nodes in a multimode network. It is noted that the symbols of the prior art described above show digital sequences representing symbols would be readable on the claim limitations. Short et al (See Figs. 2B-3) show a multibit sequences produces by a plurality of shift registers in a spread spectrum signal from transmission to reception nodes. It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Frazier. Jr. or Kaufman et al because the digital signals and multibit sequences signals are conventional functional equivalents. Regarding the plural register

limitations of claim 5, either Frazier. Jr.(See Figs. 6 and 7, Col. 6, lines 40-60, Col. 15, lines 45-60 and claims 12 and 15) or Kaufman et al(See Fig. 2, 8, Col. 8 lines 20-6 and claim 1) show an assembly of spread spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage in a plurality of shift registers which is a functional equivalent of the claim limitations. Regarding the memory limitations of claim 6, Short et al(Fig 2B) show a plurality of memories which are the functional equivalent of the claim limitations. Regarding plural sequence limitations of claim 7, either Frazier. Jr.(See Figs. 6 and 7, Col. 6, lines 40-60, Col. 15, lines 45-60 and claims 12 and 15) or Kaufman et al(See Fig. 2, 8, Col. 8 lines 20-6 and claim 1) show an assembly of spread spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage in a plurality of shift registers which is a functional equivalent of the claim limitations. Regarding the phase limitations of claim 8, either Frazier. Jr.(See Figs. 6 and 7, Col. 6, lines 40-60, Col. 15, lines 45-60 and claims 12 and 15) or Kaufman et al(See Fig. 2, 8, Col. 8 lines 20-6 and claim 1) show an assembly of spread spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage in a plurality of shift registers with plural phase symbol (See Frazier. Jr., Col. 2, lines15-20, or Kaufman et al, Col. 8, lines25-40) spreading which is a functional equivalent of the claim limitations. Regarding sequence limitations of claim 9, either Frazier. Jr.(See Figs. 6

and 7, Col. 6, lines 40-60, Col. 15, lines 45-60 and claims 12 and 15) or Kaufman et al(See Fig. 2, 8, Col. 8 lines 20-6 and claim 1) show an assembly of spread spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage in a plurality of shift registers which is a functional equivalent of the claim limitations. Regarding the phase limitations of claim 10, either Frazier. Jr.(See Figs. 6 and 7, Col. 6, lines 40-60, Col. 15, lines 45-60 and claims 12 and 15) or Kaufman et al(See Fig. 2, 8, Col. 8 lines 20-6 and claim 1) show an assembly of spread spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage in a plurality of shift registers with plural phase symbol (See Frazier. Jr., Col. 2, lines15-20, or Kaufman et al, Col. 8, lines25-40) spreading which is a functional equivalent of the claim limitations. Regarding the storage limitations of claim 11, Short et al(Fig 2B) show a plurality of memories which are the functional equivalent of the claim limitations. Regarding the phase limitations of claim 12, either Frazier. Jr.(See Figs. 6 and 7, Col. 6, lines 40-60, Col. 15, lines 45-60 and claims 12 and 15) or Kaufman et al(See Fig. 2, 8, Col. 8 lines 20-6 and claim 1) show an assembly of spread spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage in a plurality of shift registers with plural phase symbol (See Frazier. Jr., Col. 2, lines15-20, or Kaufman et al, Col. 8, lines25-40) spreading which is a functional equivalent of the claim limitations. Regarding

the plural register limitations of claim 13, either Frazier. Jr.(See Figs. 6 and 7, Col. 6, lines 40-60, Col. 15, lines 45-60 and claims 12 and 15) or Kaufman et al(See Fig. 2, 8, Col. 8 lines 20-6 and claim 1) show an assembly of spread spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage in a plurality of shift registers which is a functional equivalent of the claim limitations. Regarding the memory limitations of claim 14, Short et al(Fig 2B) show a plurality of memories which are the functional equivalent of the claim limitations. Regarding the length limitations of claim 15, either Frazier. Jr.(See Figs. 6 and 7, Col. 6, lines 40-60, Col. 15, lines 45-60 and claims 12 and 15) or Kaufman et al(See Fig. 2, 8, Col. 8 lines 20-6 and claim 1) show an assembly of spread spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage in a plurality of shift registers that are of identical construction which is a functional equivalent of the claim limitations. Regarding claim 16, either Frazier. Jr.(See Figs. 6 and 7, Col. 6, lines 40-60, Col. 15, lines 45-60 and claims 12 and 15) or Kaufman et al(See Fig. 2, 8, Col. 8 lines 20-6 and claim 1) disclose an assembly of spread spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage in a plurality of shift registers and placed on a sinusoidal carrier for subsequent sequence correlation and symbol recovery substantially as claimed. The differences between the above and the claimed

invention is the use of binary signals from shift registers which represent a portion of the information from transmission and reception nodes. It is noted that the symbols of the prior art described above show digital sequences representing symbols would be readable on the claim limitations. Short et al (See Figs. 2B-3) show a multibit sequences produces by a plurality of shift registers in a spread spectrum signal from transmission and reception nodes. It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Frazier. Jr. or Kaufman et al because the digital signals and multibit sequences signals are conventional functional equivalents. Regarding plural sequence limitations of claims 17-19, either Frazier. Jr.(See Figs. 6 and 7, Col. 6, lines 40-60, Col. 15, lines 45-60 and claims 12 and 15) or Kaufman et al(See Fig. 2, 8, Col. 8 lines 20-6 and claim 1) show an assembly of spread spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage in a plurality of shift registers which is a functional equivalent of the claim limitations.

Any inquiry concerning this communication should be directed to Salvatore Cangialosi at telephone number. (703) 305-1837. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell, can be reached at (703) 305-9768.

Any response to this action should be mailed to:

Commissioner of Patent and Trademarks

Washington, D.C. 20231

or faxed to (703)872-9306

Hand delivered responses should be brought to Crystal Park V, 2451 Crystal Drive, Arlington, Virginia, Seventh Floor(Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 3600 Customer Service Office whose telephone number is (703) **308-4177**.

SALVATORE CANGIALOSI
PRIMARY EXAMINER
ART UNIT 222